

ACOUSTICS2008/1579
Mesoplodon densirostris transmission beam pattern estimated
from passive acoustic bottom mounted hydrophones and a DTag
recording

Jessica Ward^a, David Moretti^a, Ronald Morrissey^b, Nancy Dimarzio^b, Peter Tyack^c and Mark Johnson^c

^aNAVSEA, Newport Undersea Warfare Center, Newport, RI RI 02841, USA

^bNaval Undersea Warfare Center Division Newport, 1176 Howell Street, Bldg 1351, 2nd Floor, Newport, RI 02841, USA

^cWoods Hole Oceanographic Institution, Applied Ocean Physics & Engineering Dept., Woods Hole, MA 02543, USA

The transmission beam pattern of a female *Mesoplodon densirostris* tagged on October 23, 2006 in the Tongue of the Ocean, Bahamas is estimated using data from a Woods Hole Oceanographic Institution DTag and simultaneous recordings from broadband, bottom mounted hydrophones at the Atlantic Undersea Test and Evaluation Center, Andros Island, Bahamas. The bottom mounted hydrophones are used to localize the tagged animal and measure the received level of each click. Pitch, roll and heading from the DTag are used to determine the horizontal and vertical aspect angles relative to the hydrophone. An estimate of the *M. densirostris* horizontal and vertical transmission beam pattern based on four dives will be presented.